## Message

From: Charles Hauber [chauber@summitengineer.net]

**Sent**: 8/12/2020 2:17:52 PM

To: Giancarlo, Mary Beth [Giancarlo.Marybeth@epa.gov]; Reif, Marty/WDC [Marty.Reif@jacobs.com]
CC: Bob Hochevar [bhochevar@summitengineer.net]; Neal Miesle [nmiesle@summitengineer.net]

**Subject**: Gorge Dam removal/Front Street Bridge

Attachments: combined soils pdf.pdf

Mary Beth-Marty,

I will not be on todays call. Below are the Summit County Engineer comments on the preliminary design review.

- 1. Attached is a combined pdf of the Structure Foundation Investigation for the bridge for your convenience. Ten borings were taken for the bridge, designed in 1979; eight were extended into bedrock, two (B-9 and B-10) stopped at the bottom of stream. The borings for embankment material near the rear abutment (A-1) and at the forward abutment (A-2) indicate very low Standard Penetration or "N" values. We feel the this material will need to be armored with Rock Channel Protection, Type A. The plans show Dumped Rock Fill, Type A on the existing northern bank and none on the southern bank, except at the southwestern corner. After the final configuration of the channel section is known and shown on a bridge Site Plan, we will have a better idea of what we the site will look like, but the southern slope probably will need to be protected as well. The existing deep foundations all extend to bedrock so they should be stable, but we will have to wait to see what the studies indicate regarding scour, embankment erosion, ice and debris loadings, etc.
- 2. A Permit from The Summit County Engineer is required for any work associated with the bridge including slope stabilization, scour protection etc. Also, for any work within the Right of Way of the County Bridge limits. This also includes the Transport Pipe Line where it runs under the Front Street Bridge and the N. Main Street Bridge.
- 3. I'm discussing with our staff the types of warranties, performance bond, maintenance bond and time period of the bonds we will need for the improvements associated with the bridge. Summit County Engineer will need to have the authority to inspect/approve/reject work and punch list items associated with the bridge and any work within the right of way of the bridge limits.
- 4. Items 2 & 3 can be discussed later after we reviewed the scour evaluation and abutment/foundation analysis noted in the draft Preliminary Basis of Design Report, section 4.5.2 Front Street Bridge
- 5. Please provide a copy of the hydraulic study done by Arcadis.

Thanks, stay safe and healthy.

I am working remotely from home. If you have any questions, please contact me via email or cell. My work hours are M-F; 7:30 AM to 4:00 PM.

Thank You

Charles Hauber, P.E., P.S. Engineer Project Manager

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